Title

"An A-Train Integrated Aerosol, Cloud, and Radiation Data Product"

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Abstract

This proposal is designed to provide the first integrated data set for global vertical profiles of aerosols, clouds, and broadband radiative fluxes using the combined NASA A-Train data from Aqua CERES broadband flux data, MODIS passive imager aerosol and cloud data, CALIPSO active lidar aerosol and cloud data, and the CloudSat active radar cloud data. All of these instruments are flying in formation as part of what is called the Aqua Train, or A-Train. These new data will provide unprecedented ability to test and improve global cloud and aerosol models, to investigate aerosol direct and indirect radiative forcing, and to validate the accuracy of global aerosol, cloud, and radiation data sets especially in polar regions and for multi-layered cloud conditions.